

## **Submission on the Draft Tasman Environment Plan: Aorere ki uta, Aorere ki tai**

**From Zero Carbon Nelson Tasman (ZCNT)**

**Date of submission: 10 December 2020**

### **Our Team**

Zero Carbon Nelson Tasman (ZCNT) formed in 2018 following the IPCC's report on the urgency of limiting the global average temperature to below 1.5 degrees Centigrade to avoid catastrophic climate change. All our work over the last 2 years has been focused on the objectives of mitigation, adaptation and a just transition to a low carbon society.

### **The next decade:**

The next 10 years will be decisive. Many challenges to what we have become used to will arrive, potentially all at once. No one person, community, organisation, business, Central or local government is going to come up with one solution to manage mitigation, adaptation and a just transition alone. We will all be faced with something novel and unknown. Climate Change affects everything. The whole community needs to be fully engaged in this project and Council must prepare for a well-informed, fair and decisive leadership role locally.

### **Strategic Framework:**

Develop a strategic framework with a time horizon of 100 years with Whakatu Nelson tangata whenua and the community, partnership with Nelson City Council, to adapt and increase resilience to the effects of climate change, including physical and mental health issues. The strategic framework requires a long time horizon to be beneficial to future generations and residents, and NCC needs to be involved as this is obviously a cross boundary issue. Health problems will increase with heat, fires, floods, storms and lack of social cohesion.

### **Tasman District Council Actions:**

TDC has taken important steps to address the challenges of climate change with the 2019 Climate Action Plan, the release of Sea Level Rise mapping and opportunities for the public to make their suggestions known. Council staff have also attended Nelson Tasman Climate Forum meetings and other events.

### **Linkeages of climate change to all 9 Themes presented for Community Consultation:**

We support the Council seeking community engagement on the 9 themes presented by Council for community consultation. However, only 2 of them, Climate Change and Natural Hazards, address the impacts of the climatic risks that science warns us of. We ask that Council details how all 9 themes are impacted by climate change and, in turn, describes how each theme has a role in reducing emissions as well as in adaptation and building resilience. We ask that Council move further and faster as the urgency requires, taking account of Government requirements related to carbon budgets and emission reduction and with on-going funding, staff and resources. We support the aims of a risk-based precautionary approach, adaptive planning with the community, education outreach and building resilience.

Collaboration at all levels is key to achieving outcomes with greater emphasis on this by the TDC together with NCC, local agencies, organisations, businesses (particularly those addressing climate change issues such as Businesses for Climate Action) and the broad community.

**Resourcing:**

There must be adequate sustained funding, staff and resources allocated internally within TDC to climate change. This includes education and information sharing internally with all staff and counselors and support to understand the complexities, challenges and opportunities in addressing climate change. Neither councils nor communities working alone can engage in these difficult decisions but working collaboratively to ensure alignment will be essential to success.

**Impacts of climate change on communities:**

Climate change is a threat to the health of our communities, particularly mental wellbeing, injury from severe climate-related events: heat stroke, summers too hot inside many schools and hospitals, unsafe and unhealthy work environments outside, shortage of water, impact on food production, storms and flooding, disease from flood waters, sewage and debris, fires, smoke and PM2.5 inhalation and lack of social cohesion. Knowledge of the issues is vital so we can accept the changes needed and be prepared for impacts.

**The TEP and the Climate Change Act 2019**

Council carbon reductions are required to be in line with the Climate Change (Zero Carbon Amendment) Act (ZCA) 2019: Ten percent reduction in biogenic methane from 2017 levels by 2030; net carbon zero by 2050, with the exception of biogenic methane, for which there is a range of targets from 24 to 47% reduction. In addition the purpose of the Act is to limit global warming to 1.5 degrees which requires a 50% reduction in emissions by 2030, and there will be 5 yearly emission reduction targets. Council will need to review this objective and related policies as the carbon budgets are set and updated. The Act requires active emission reductions over the next 10 years of 7.6% pa starting now as well as the 2050 goal. The TDC therefore needs a strategy to achieve this which is reflected in the TEP. This level of reduction gives a steady decline to net zero by 2050. The benefit of a steady decline is that it is easier to plan for and to become accustomed to. Being compelled to undertake extreme reductions closer to 2050 would be less acceptable. We accept this has political costs and hope the council is bold and courageous enough to do what is right for future generations which will in fact deliver co-benefits and well- beings.

**Leadership:**

Council could show stronger leadership by informing the public of the risks and hazards of climate change and by modelling action. It is not going to be possible to get the public to undertake mitigation and adaptation measures unless they are kept well informed and engaged. The Sea Level Rise mapping will have lifted the awareness of both mitigation and adaptation, and presents a good opportunity to build on this awareness. It is vital that Council is a trusted source of timely information, shares what is

known and what is not known. There are some things that only a council has the authority to do. Without our Council's visible leadership, such as more community articles in Newsline and the TDC website on climate change, more reporting on what TDC is doing and support for public education, it is unrealistic to expect the public to undertake their personal responsibility to reduce emissions.

#### **Education:**

We ask that our Council provide education on how to conserve resources, avoid or minimise emissions, plan for adaptation and build resilience. This can be done jointly with our neighbouring councils, NMDHB, Emergency Services, schools and other potential partners. Many actions to reduce emissions carry co-benefits: active transport, for instance, improves the health of children and adults.

Adaptation will require advocacy and education because the majority of the public is still not aware of the sea level rise trajectory, frequency of severe flooding events and insurance retreat. Declining carbon budgets and net energy availability will impact our adaptation strategies. Avoiding and reducing carbon (and methane) emissions is required.

Zero Carbon Nelson Tasman (ZCNT) is engaged with the Nelson Tasman Climate Forum (the Forum) and we can testify to the quality of community involvement and enthusiasm which has gathered pace since the Forum's launch in February 2020. The Forum is in a good position to assist with advocacy and community education.

#### **Development in high risk areas:**

Development in areas at high risk from natural hazards should be avoided unless significant infrastructure (e.g. ports) need to remain in such areas, and the adverse effects can be mitigated.

However, population growth is increasing the pressure to develop and intensify areas already subject to natural and man-made hazards, including contaminated land. Cultural heritage and regionally significant infrastructure are also vulnerable to the effects of climate change.

#### **Long term planning:**

Long term planning is essential: The Zero Carbon Act (ZCA) requires us to be carbon neutral by 2050, and to be operating under shrinking 5 yearly carbon budgets during the next 10-15 years that this TEP will be operational. With 30cm of sea level "baked in" for the next 40 years TDC needs to start the long term planning for managed retreat while the construction of new infrastructure is possible.

#### **Sea Level rise and buildings:**

We support TDC providing the coastal hazard flood maps, Council's current risk assessment work related to 2meters of sea level rise and the important mahi on dynamic adaptive planning. We request that more information be provided to increase awareness of the issue and that TDC's excellent initiatives on slr be well resourced. The flood map's explanation of what 1% AEP means is quite misleading as the frequency of these events change dramatically with rising sea levels and increasing storm events. For example, 10 cm increase in sea level (likely to occur between 2034 and 2037) will make the current one in 100 year flooding event to occur once every 33 years. With 20 cm of sea level rise (likely to occur 2045 -2046), this will become the one in 11 year event. It is highly likely that, by

then, insurance will be withdrawn from these high risk zones, meaning homeowners and business owners will be unable to get a mortgage, and the buildings when damaged won't be properly repaired. The development of minimum floor levels is a very short term way of solving a long term issue. All the existing buildings and infrastructure will remain around the raised new builds and this is not conducive to public health, care of vulnerable people or level of service council will need to provide, and increases the probability that ratepayers are expected to bail out uninsured and/or flooded homes. This needs a serious rethink, and assistance from Central Government as it is a nationwide issue. The building consent process could be used to encourage, persuade or reward buildings that are built to last far longer than 50 years. Timber should be made a priority over emission heavy concrete and steel. All buildings, infrastructure (above and below ground) and roads must be moved to higher ground before the sea claims them. Otherwise building debris will end up in the ocean and cause significant damage to the marine habitat.

**Council good practice:**

We suggest that TDC considers adopting the same approach as the Western Bay of Plenty District Council in terms of restricting materials and the type of buildings acceptable on inundation zones. WBPDC says "If your property is identified in the District Plan maps as a coastal erosion area, you will need resource consent. If you are constructing a habitable building, it must be relocatable e.g. on timber piles or on relocatable concrete foundations like RibRaft. You will also need a statement from someone like a relocatable housing company to show how it can be dismantled and shifted off-site. If you are building a shed or garage, you can build on standard concrete foundations. You will also need to ensure that in all cases new buildings are not going to block or be blocked by other buildings. This is because everything needs clear access to be shifted off-site if erosion occurs." See: <https://www.westernbay.govt.nz/property-rates-and-building/natural-hazards/coastal-erosion>

**Coastal and Marine Environment:**

We support the existing purpose and concerns of this Theme. However, climate change impacts are not discussed. Impacts such as warming of the oceans, acidification, salinization, sedimentation and forest debris after extreme weather events all affect fish stocks and aquaculture. These impacts require a significant profile given the massive change which climate change will bring to ocean health. Blue carbon can sequester a large amount of CO2 from the atmosphere and therefore also needs a higher profile.

**Energy Security:**

We support enhancing energy security for the region. Our power supply from the south is vulnerable to earthquakes, as well as other natural and environmental hazards. Community scale renewable energy operations could provide secure, low emissions, inexpensive power, with many co-benefits such as job creation, and could be facilitated by TDC. Reducing emissions must be a key outcome, particularly for all transport planning and decision making, as it is a significant portion of our region's emissions. The emissions during construction and energy used must also be considered in the cost benefit analysis. As part of the planning for a secure energy system for TDC we recommend that consultants be engaged to determine the optimal mix of renewable energy sources, and that they consider net energy analysis for all alternatives considered. With a move away from fossil fuels (which have a high net energy

surplus), careful net energy analysis (NEA) is essential in choosing an energy system because of the lower net energy surplus available from all renewable energy sources.

**Energy Conservation:** We support the inclusion of energy conservation as a high priority, with a focus on how we can meet wellbeing and economic needs with less energy. A move away from fossil fuels will invariably mean less energy will be available in the future. Hence, energy conservation will play an increasingly important role in community wellbeing.

Tasman can adopt a variety of renewable energy sources in our region including wood pellets, solar water heating and solar photovoltaic while supporting low emission public transport, EV recharging stations, cycling and walking pathways. We strongly support advocacy, funding and partnerships, particularly the potential incentives for small or community-scale renewable generation. The overall focus should be on robust infrastructure that will survive the severe events of climate change.

**Participatory Budgeting:**

Given the challenges we face with energy supply, resilience and demand, we suggest citizen engagement (for example Participatory Budgeting) to determine how carbon emissions and energy supply should be prioritized to meet wellbeing needs.

**Significant Infrastructure:**

We support the inclusion of long term strategies for planning and management of significant infrastructure such as the port, airport and wastewater in response to climate change adaptation. A time horizon is needed for these strategies. We recommend that an outlook of 100 years is needed for adaptation planning. This strategic planning and management also should include all infrastructure and transport, regardless of size, as poor decisions now are likely to make adaptation harder in the future.

**Wastewater treatment:**

This is among the most vulnerable infrastructures to sea level rise in our region. It is vital that during the lifespan of the TEP there is also a plan developed to relocate such infrastructure. We recommend this is specifically detailed as it has far reaching consequences for all existing and new development and major assets. Reducing the amount of sewerage going down to sea level is crucial to reduce risk.

**Urban Form and development:**

It is important to get the location and timing of development right. This involves transport networks, densification, infrastructure, protection of productive land and collaborating with NCC. Currently, much of the infrastructure is unable to cope with more housing while the Zero Carbon Act (ZCA) 2019 is going to apply shrinking carbon budgets while sea level rise and storm events are accelerating. The council should actively start searching for suitable areas where thousands of residents (currently living in high risk properties) could relocate to. The site selection must consider seismic and other risks, and be far enough above sea level to avoid continuous moving to higher ground. Additional population will require more drinking and household water, sewage treatment, schools, hospital beds, roading, electricity etc.

**Conclusion:**

We acknowledge the extensive challenges the council and community faces in tackling the climate crisis. These challenges are best faced together, collaboratively and as openly and honestly as possible. We will continue to support and collaborate with this mahi as much as we are able to, working with our councils and communities.

Ngā mihi,  
The Zero Carbon Nelson Tasman team.

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